In the specification:

Please amend the specification as follows:

[0023] Referring now to Figure 3, a cross-sectional perspective view of an anode assembly 50 that incorporates a bearing encasement 52 and a heat shield 54 in accordance with an embodiment of the present invention is shown. The anode assembly 50 includes a rotating anode 56 having a target 58 with an associated focal spot 60. The anode 56 rotates on and with a bearing shaft 62 via a pair of bearing sets 64. The bearing shaft 62 is attached to a rotor 63 that rotates within a can 65. A stator (not shown) slides over the can 65 and is used in rotation of the rotor 63. The heat shield 54 resides between the anode 56 and the bearings 64. The bearing encasement 52 and the heat shield 54 are stationary and maintain operating temperature of the bearings 64 and are thermally expansion limited. The bearing encasement 52 and the heat shield 54 in maintaining operating temperature of the bearings 64 prevent thermal expansion of other anode related components within the anode assembly. Prevention of thermal expansion of anode assembly components prevents displacement of the focal spot. Impinging electrons 66, resultant emitted x-rays 68, and a sample focal spot displacement D are shown. The focal spot displacement D is not shown to scale, may vary in size depending upon the application, and is minimized in size by the bearing encasement 52.

[0025] The bearing encasement 52 is formed of one or more control expansion alloys depending upon the application. Examples of some control expansion alloys are 36 alloy, 39 alloy, 42 alloy, 45 alloy, 49 alloy, Invar 36® Alloy, Kovar® Alloy, Ceramvar® Alloy, and Inco® 909. These alloys have varying percentages of iron, nickel, and cobalt content. Table 1 provides thermal conductivity, yield strength, and elastic modulus values for some of the above-mentioned alloys. Table 1 also provides thermal conductivity, yield strength, and elastic modulus values for a typical ~~glideup~~Glidcop® or dispersion strengthened copper. "Glidcop®" is a trademark of OMG America. A ~~glidcup~~Glidcop® or Glidcop® material is commonly formed of copper having an aluminum oxide dispersant and does not provide the thermal conductivity and expansion characteristics desired.

[Table 1 – Control Expansion Alloy Characteristic Values]

	36 Alloy	39 Alloy	42 Alloy	49 Alloy	Kovar® Alloy	Inco® 909	~~Glidcup~~ Glidcop®
Thermal Conductivity (Btu-in/hr-sq ft-deg F)	72.6	73.5	74.5	90	130.3	137.3	1872
Yield Strength (ksi)	40	40	40	40	32.6	139.2	75
Elastic Modulus (10^6psi)	20.5	21	21	24	22.9	23.8	18.8

[0031] Referring again to Figure 3, the heat shield is coupled to a stationary backing plate 95. Although~~although~~ the heat shield 54 prevents thermal energy transfer between the anode 56 and the bearings 64, the heat shield 54 may have a ~~radial~~ height H that is less than a predetermined height for thermal energy passage between the anode 56 and the bearings 64 to a certain extent. The thermal energy passage may occur for temperatures that are greater than a predetermined threshold. The height H may be determined using thermal modeling techniques known in the art. As the height H is adjusted the heat shield 54 remains attached to the backing plate 95. In having the ~~radial~~ height H less than a predetermined height, the heat shield 54 provides temperature continuity between the bearings 64. The front bearings 70 are able to increase to a temperature that is approximately the same as that of the rear bearings 72, which provides rotational uniformity of the anode 56 on the shaft 62.